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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,199

09/09/2004

Andrew James Hickman

GB 020198

4279

24737 7590 12/20/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

VAUTROT, DENNIS L

ART UNIT

PAPER NUMBER

2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/20/2006

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/507,199

Applicant(s)

HICKMAN, ANDREW JAMES

Examiner

Dennis L. Vautrot

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The applicants' amendment, filed 22 September 2006, has been received, entered into the record and considered.
2. As a result of the amendment, claims 1 – 4, 6 – 11, 13 – 15, and 17 are amended. Claims 1 – 18 are pending in the application.
3. Applicant's arguments with respect to claims 1 – 18 have been considered but are moot in view of the new ground(s) of rejection.

Specification

4. The corrections to the specification have been received. The objection to the specification is withdrawn.

Claim Objections

5. The objection to claims 6 and 13 are withdrawn in light of the submitted corrections to the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 – 3, 6 – 10, and 13 – 14 are rejected under 35 U.S.C. 102(e) as being anticipated by **Hillerbrand et al.** (hereinafter **Hillerbrand**, US 2004/0054690).

8. Regarding claim 1, **Hillerbrand** teaches a method for automatically discovering web services comprising:

querying a known UDDI server by a networked [computer-to-computer] CE device via a structured [predetermined format] query (See page 26, paragraph [0281] “In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis.” Also, a CE device is broadly defined in the instant application’s specification to include computers, therefore, this reference is interpreted to apply – see instant spec page 1, lines 23 – 26 where PCs and PDAs are referred to as a CE device. Also, the predetermined format of the input is interpreted to be a query.),

wherein the structured query by the networked CE device includes the use of a unique identity of a web service that is compliant with a particular web service standard

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(See page 17, paragraph [0195] "These particular service types, as known to those skilled in the art, are called "tModels." Thus, in the preferred embodiment, the data structure in the UDDI-compliant database or resource registry 142 comprises a tModel that has a name, description, and a unique identifier." In the instant application's specification, the unique identifier is referred to as a tModel in the registry.)

the known UDDI server at the UDDI server address containing a list of web services (See page 17, paragraph [0195] "Typically, each business registered in a UDDI-compliant database lists all of its services and gives each of these services a type, with each service type having a unique identifier that comes from a pool of known service types, that also are registered with UDDI."),

and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard and which can be successfully used by the networked CE device (See page 17, paragraph [0195] "Typically, each business registered in a UDDI-compliant database lists all of its services and gives each of these services a type, with each service type having a unique identifier that comes from a pool of known service types, that also are registered with UDDI." Also see page 26, paragraph [0281] where "the output is provided in return in a predetermined format." This is interpreted to be in the format that can be used successfully with the networked CE device.);

identifying from said list the compliant web services (See page 27 , paragraph [0285] "FIG. 27 illustrates a first semantic mark-up display screen 2700 that displays a list of selectable computer resources, here in the form of web services, that may be

selected by a system user for further operations, in particular, as part of the mark-up process to create ontologies associated with a particular web service.” While this is described in terms of user intervention, in light of the following, which was also disclosed above, this is interpreted to be equivalent - page 26, paragraph [0281] “In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis.”); and

automatically [automated] downloading via a structured response [pre-determined format] to the networked CE device at least one machine readable description [web service description] of a distinct web service from the list of identified compliant web services. (See page 26, paragraph [0281] “...with output provided in return in a predetermined format, with no intervening displays to human being to provide a totally automated operation on a computer-to-computer basis.” And see page 27, paragraph [0283] “Upon completion of display screen 2500 the web service structural ontology is populated with information obtained from the web service description.”)

9. Regarding claims 2 and 9, **Hillerbrand** teaches said method being carried out periodically by the networked CE device, without user interaction [automatic]. (See page 1, paragraph [0007] “Machine understandability is required in order for there to be automatic web service invocation, composition, interoperation, and monitoring.” The

interoperation and monitoring is interpreted to represent the method that is being carried out. More specifically, also, see page 3, paragraph [0016] "Computer-interpretability allows software applications to be created that perform: (i) automatic web service discovery by locating web services that provide a particular service that adheres to requested constraints; (ii) automatic web service invocation through the use of a machine understandable description of the service and how specific operations within the service are invoked..."")

10. Regarding claims 3 and 10, **Hillerbrand** teaches said querying [input information] comprises transmitting the structured query in a predefined [predetermined] format, and wherein said structured query contains a specific request, thereby limiting the type of compliant web service identified (See page 26, paragraph [0281] "In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis." And see page 17, paragraph [0199] "In the present invention, a query is used, for example to locate web services based on classification criteria contained in an instance of an ontology." This returns the type limited compliant web service.)

11. Regarding claim 6, **Hillerbrand** teaches responding to said querying with a response comprising the list of compliant web services. (See page 17, paragraph [0200] "After the search is complete, the semantic broker receives the RDF search results and communicates the results to the interpretation component. The interpretation component converts the search results to a user readable format. The graphical display engine then displays the results to the user." And see page 27, paragraph [0285] "...displays a list of selectable computer resources, here in the form of web services, that may be selected by a system user for further operations...")

12. Regarding claims 7 and 14, **Hillerbrand** teaches selecting via said networked CE device a web service from said list of compliant web services and communicating the selected web service to said UDDI server address. (See page 18, paragraph [0205-0206] "...discovery of best applicable web services that satisfy the criteria and parameters selected by the end user to define an instance of the execution model, execution of such execution model instance, and viewing of results of the execution. More specifically, at step 711, the various web services are registered...It should be understood... that...the preferred format for registering such web services is in a UDDI-compliant structure..." The registration consists of communication the selected web service to the UDDI server address. And see page 27, paragraph [0285] "Results of the search are displayed in field 2720 for actual selection by the user." While it is selected by the user, the selection is done via the networked CE device.)

13. Regarding claim 8, **Hillerbrand** teaches an apparatus for automatically discovering web services comprising:

communicating means for querying a known UDDI server address containing a list of web services, wherein querying includes using a structured [predetermined format] query by a networked [computer-to-computer] CE device (See page 26, paragraph [0281] "In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis." Also, a CE device is broadly defined in the instant application's specification to include computers, therefore, this reference is interpreted to apply – see instant spec page 1, lines 23 – 26 where PCs and PDAs are referred to as a CE device. Also, the predetermined format of the input is interpreted to be a query.),

the structured query including use of a unique identity of a web service that is compliant with a particular web service standard (See page 17, paragraph [0195] "These particular service types, as known to those skilled in the art, are called "tModels." Thus, in the preferred embodiment, the data structure in the UDDI-compliant database or resource registry 142 comprises a tModel that has a name, description, and a unique identifier." In the instant application's specification, the unique identifier is referred to as a tModel in the registry.),

and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard and which can be successfully used by the networked CE device (See page 17, paragraph [0195] "Typically, each business registered in a UDDI-compliant database lists all of its services and gives each of these services a type, with each service type having a unique identifier that comes from a pool of known service types, that also are registered with UDDI." Also see page 26, paragraph [0281] where "the output is provided in return in a predetermined format." This is interpreted to be in the format that can be used successfully with the networked CE device.); and

identifying from said list the compliant web services (See page 27 , paragraph [0285] "FIG. 27 illustrates a first semantic mark-up display screen 2700 that displays a list of selectable computer resources, here in the form of web services, that may be selected by a system user for further operations, in particular, as part of the mark-up process to create ontologies associated with a particular web service." While this is described in terms of user intervention, in light of the following, which was also disclosed above, this is interpreted to be equivalent - page 26, paragraph [0281] "In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis."), said communicating means further being arranged to automatically [automated] download

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via a structured response [pre-determined format] to the networked CE device at least one machine readable description [web service description] of a distinct web service from the list of identified compliant web services. (See page 26, paragraph [0281] "...with output provided in return in a predetermined format, with no intervening displays to human being to provide a totally automated operation on a computer-to-computer basis." And see page 27, paragraph [0283] "Upon completion of display screen 2500 the web service structural ontology is populated with information obtained from the web service description.")

14. Regarding claim 13, **Hillerbrand** teaches a user interface for displaying information and for receiving user instructions. (See page 5, paragraph [0038] "This disclosed system includes a user interface component for receiving user commands and input information from users and/or external computer systems.")

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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16. Claims 4, 5, 11, 12, and 15 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hillerbrand** as applied to claim 1 above, and further in view of **Qian** (US 2003/0061206).

17. Regarding claims 4 and 11, **Hillerbrand** teaches a method substantially as claimed.

Hillerbrand does not explicitly disclose said structured query contains a request for TV Anytime services, said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform.

However, **Qian** teaches said structured query contains a request for TV Anytime services (See page 3, paragraph [0037] “The descriptor/metadata may follow some well known standards. Examples of these standards include...TV-Anytime metatadata...”); said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform (See page 3, paragraph [0031] “Any content that does not match with the personal preference information is ignored or discarded. Those that satisfy the preference criteria or match with the personal preference information are sent to the content assembler.” And see page 3, paragraph [0036] where different taxonomies relating to content format, etc are discussed.)

It would have been obvious to one with ordinary skill in the art to combine the teaching of **Hillerbrand** with that of **Qian** because, as **Qian** suggests, any number of well-known standards could be used in the discovery of web services, and there is

useful commercial applicability for TV-Anytime in particular with these types of CE devices. It is for this reason that one of ordinary skill in the art would have been motivated to include said structured query contains a request for TV Anytime services, said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform.

18. Regarding claims 5, 12, 16, and 18, **Hillerbrand** teaches a method substantially as claimed. **Hillerbrand** fails to teach said set of taxonomies is at least one of authority name, broadcast service, genre, content format, service usage rights, table types and queryable fields. However, **Qian** teaches said set of taxonomies is at least one of authority name, broadcast service, genre, content format, service usage rights, table types and queryable fields. (See page 1, paragraph [0018] "The preferences include contextual preferences regarding the content the user wishes to receive from the media source...favorite topics, news, sports news... The user may also provide preferences for content delivery such as time to download, desired quality of service, etc." This is showing at least an example of genre.) It would have been obvious to one with ordinary skill in the art to combine the teaching of **Hillerbrand** with that of **Qian** because, the various types of taxonomies are related to the TV-Anytime information and as previously mentioned, the TV-Anytime information commercial uses are well known. It is for this reason that one of ordinary skill in the art would have been motivated to include said set of taxonomies is at least one of authority name, broadcast service, genre, content format, service usage rights, table types and queryable fields.

19. Regarding claims 15 and 17, **Hillerbrand** teaches a method for automatically discovering web services comprising:

querying a known UDDI server by a networked [computer-to-computer] CE device via a structured [predetermined format] query (See page 26, paragraph [0281] “In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis.” Also, a CE device is broadly defined in the instant application’s specification to include computers, therefore, this reference is interpreted to apply – see instant spec page 1, lines 23 – 26 where PCs and PDAs are referred to as a CE device. Also, the predetermined format of the input is interpreted to be a query.),

wherein the structured query by the networked CE device includes the use of a unique identity of a web service that is compliant with a particular web service standard (See page 17, paragraph [0195] “These particular service types, as known to those skilled in the art, are called “tModels.” Thus, in the preferred embodiment, the data structure in the UDDI-compliant database or resource registry 142 comprises a tModel that has a name, description, and a unique identifier.” In the instant application’s specification, the unique identifier is referred to as a tModel in the registry.)

the known UDDI server at the UDDI server address containing a list of web services (See page 17, paragraph [0195] "Typically, each business registered in a UDDI-compliant database lists all of its services and gives each of these services a type, with each service type having a unique identifier that comes from a pool of known service types, that also are registered with UDDI."),

and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard and which can be successfully used by the networked CE device (See page 17, paragraph [0195] "Typically, each business registered in a UDDI-compliant database lists all of its services and gives each of these services a type, with each service type having a unique identifier that comes from a pool of known service types, that also are registered with UDDI." Also see page 26, paragraph [0281] where "the output is provided in return in a predetermined format." This is interpreted to be in the format that can be used successfully with the networked CE device.);

identifying from said list the compliant web services (See page 27 , paragraph [0285] "FIG. 27 illustrates a first semantic mark-up display screen 2700 that displays a list of selectable computer resources, here in the form of web services, that may be selected by a system user for further operations, in particular, as part of the mark-up process to create ontologies associated with a particular web service." While this is described in terms of user intervention, in light of the following, which was also disclosed above, this is interpreted to be equivalent - page 26, paragraph [0281] "In like manner, ..., it will of course be appreciated that many aspects of the present invention

can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis."); and

automatically [automated] downloading via a structured response [predetermined format] to the networked CE device at least one machine readable description [web service description] of a distinct web service from the list of identified compliant web services (See page 26, paragraph [0281] "...with output provided in return in a predetermined format, with no intervening displays to human being to provide a totally automated operation on a computer-to-computer basis." And see page 27, paragraph [0283] "Upon completion of display screen 2500 the web service structural ontology is populated with information obtained from the web service description."),

said querying [input information] comprises transmitting the structured query in a predefined [predetermined] format. (See page 26, paragraph [0281] "In like manner, ..., it will of course be appreciated that many aspects of the present invention can be implemented by computer-to-computer communications wherein input information is provided automatically in a predetermined format, with output provided in return in a predetermined format, with no intervening displays to a human being to provide a totally automated operation on a computer-to-computer basis." And see page 17, paragraph [0199] "In the present invention, a query is used, for example to locate web services based on classification criteria contained in an instance of an ontology." This returns the type limited compliant web service.)

Hillerbrand does not explicitly disclose TV Anytime web services, and said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform.

However, **Qian** teaches specifically TV Anytime web services (See page 3, paragraph [0037] "The descriptor/metadata may follow some well known standards. Examples of these standards include...TV-Anytime metatadata..."), said structured query further including an element specifying a set of taxonomies to which said service must conform. Conform. (See page 3, paragraph [0031] "Any content that does not match with the personal preference information is ignored or discarded. Those that satisfy the preference criteria or match with the personal preference information are sent to the content assembler." And see page 3, paragraph [0036] where different taxonomies relating to content format, etc are discussed.)

It would have been obvious to one with ordinary skill in the art to combine the teaching of **Hillerbrand** with that of **Qian** because, as **Qian** suggests, any number of well-known standards could be used in the discovery of web services, and there is useful commercial applicability for TV-Anytime in particular with these types of CE devices. It is for this reason that one of ordinary skill in the art would have been motivated to include said query contains a request for TV Anytime services, said query further including an element specifying a set of taxonomies to which said service must conform.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dv
11 December 2006


JOHN COTTINGHAM
SUPERVISOR, PATENT E
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R. Lee